

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claims 1-19 (Cancelled)

Claim 20 (Currently amended): A therapeutic composition for administration via the pulmonary airways comprising dry, discrete, hollow, spray-dried microparticles which comprise a water-soluble carrier and a therapeutically effective amount of therapeutic agent, wherein said microparticles have a mean size of between 1 and 10 microns, wherein the water-soluble carrier is selected from simple and complex carbohydrates, and further wherein the therapeutic agent is a substantially non-denatured protein, peptide or enzyme ~~produced by a process which is controlled to avoid denaturing of the protein, peptide or enzyme.~~

Claim 21 (Cancelled)

Claim 22 (Previously presented): The composition according to Claim 20, wherein the water-soluble carrier is mannitol.

Claim 23 (Previously presented): The composition according to Claim 20, wherein the water-soluble carrier material is a polysaccharide.

Claim 24 (Previously presented): The composition according to Claim 20, wherein the microparticles comprise at least 50% by weight water-soluble carrier.

Claim 25 (Cancelled)

Claim 26 (Previously presented): The composition according to Claim 20, wherein the protein is selected from insulin, parathyroid hormone, alpha-1 antitrypsin and calcitonin.

Claim 27 (Previously presented): The composition according to Claim 26, wherein the protein is insulin.

Claim 28 (Previously presented): A dry powder inhaler comprising a composition according to Claim 20.

Claim 29 (Previously presented): The composition according to Claim 20, wherein the microparticles form a free-flowing powder.

Claim 30 (Previously presented): The composition according to Claim 20, wherein the size of the microparticles is such that 90% of a mass of the microparticles lie within a respirable region of 1-5 μm .

Claim 31 (Previously presented): The composition according to Claim 20, wherein the microparticles are between 1 μm and 5 μm in size.

Claim 32 (Currently amended): A therapeutic composition for administration via pulmonary airways comprising dry, discrete, hollow, spray-dried microparticles which comprise a water-soluble carrier and a therapeutically effective amount of therapeutic agent, wherein said microparticles have a mean size of between 1 and 10 microns, wherein the water-soluble carrier is selected from simple and complex carbohydrates, and further wherein the therapeutic agent is a substantially non-denatured protein selected from the group consisting of insulin, parathyroid hormone, alpha-1 antitrypsin and calcitonin-~~produced by a process which is controlled to avoid denaturing of the protein.~~

Claim 33 (Previously presented): The composition according to Claim 20, wherein the microparticles further comprise an additive that modifies a physical property of the microparticles selected from the group consisting of dispersibility, elasticity and water permeability.

Claim 34 (Previously presented): The composition according to Claim 20, wherein the composition comprises an additive which is a phospholipid.

Claim 35 (Previously presented): The composition according to Claim 32, wherein the composition comprises an additive which is a phospholipid.

Claim 36 (Previously presented): The composition according to Claim 20, wherein the microparticles are spray-dried.

Claim 37 (Previously presented): The composition according to Claim 32, wherein the microparticles are spray-dried.

Claim 38 (Previously presented): The composition according to Claim 20, wherein the composition is water-soluble.

Claim 39 (Previously presented): The composition according to Claim 32, wherein the composition is water-soluble.

Claim 40 (Previously presented): The composition according to Claim 32, wherein the protein is substantially non-denatured.

Claim 41 (Currently amended): A therapeutic composition for administration via the pulmonary airways comprising dry, discrete, hollow, spray-dried microparticles which comprise a water-soluble carrier and a therapeutically effective amount of therapeutic agent, wherein said microparticles have an aerodynamic diameter of less than 5 microns, wherein the water-soluble carrier is selected from simple and complex carbohydrates, and further wherein the therapeutic agent is a substantially non-denatured protein, peptide or enzyme ~~produced by a process which is controlled to avoid denaturing of the protein, peptide or enzyme.~~

Claim 42 (Previously presented): The composition according to Claim 41, wherein the microparticles are suitable for delivery to the alveoli.

Claim 43 (Previously presented): The composition according to Claim 41, wherein the protein is selected from insulin, parathyroid hormone, alpha-1 antitrypsin and calcitonin.

Claim 44 (Previously presented): A therapeutic composition for administration via the pulmonary airways comprising dry, discrete, hollow, spray-dried microparticles which comprise a water-soluble carrier, a phospholipid and a therapeutically effective amount of therapeutic agent, wherein said microparticles have a mean size of between 1 and 10 microns, wherein the therapeutic agent is a substantially non-denatured protein, peptide or enzyme ~~produced by a process which is controlled to avoid denaturing of the protein, peptide or enzyme.~~